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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,750	01/27/2004	Robert H. Marchessault	50274/004002	1917

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CLARK & ELBING LLP
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BOSTON, MA 02110

EXAMINER

DO, PENSEE T

ART UNIT PAPER NUMBER

1641

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,750

Applicant(s)

MARCHESSAULT ET AL.

Examiner

Pensee T. Do

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of group II, claims 27-31, in the reply filed on June 30, 2005 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

((e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 27 is rejected under 35 U.S.C. 102(e) as being anticipated by Bose (US 6,635,181).

Bose teaches a magnetic field device for colloidal magnetic affinity separation. The magnetic particles are iron oxide particles embedded within a quarternary ammonium cellulose matrix. (polysaccharide matrix). (see col. 3, lines 35-40).

Regarding the method of preparing the composition, since the final product of the Bose is the same as that of the present invention, the method of making is not given any patentable weight because regardless of how the composition is made, the final product is the same.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bose (US 6,635,181) in view of Yapel, Jr. (US 4,169,804).

Bose has been discussed above.

However, Bose fails to teach other polysaccharides such as starch with an ammonium charged group or cellulose with a carboxyl group.

Yapel teaches a composition comprising of magnetic responsive particles such as ferromagnetic particles dispersed within a polysaccharide matrix such as starch and functional groups or combining agents as carboxylic, sulfonic, and quaternary ammonium groups. (see col. 3, lines 45-50; col. 4, line 51-col. 5, line 35).

It would have been obvious to one of ordinary skills in the art to use the different kinds of polysaccharide matrix with appropriate functional groups as taught by Yapel to embed the iron oxide particles taught by Bose because polysaccharide matrices with functional groups can attract biological substances for use in magnetic separation. One skilled in the art would have reasonable expectation of success when incorporating the magnetic particles of Bose to different polysaccharide matrices taught by Yapel, Jr. because both references teach magnetic particles dispersed in polysaccharide matrices with functional groups for use in magnetic separation.

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Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bose (US 6,635,181) in view of Cardinal et al. (US 4,895,724).

Bose has been discussed above.

However, Bose fails to teach chitosan polysaccharide.

Cardinal teaches chitosan being used as a stable matrix for dispersing macromolecules. (see abstract).

It would have been obvious to one of ordinary skills in the art to use polysaccharide such as chitosan as a matrix as taught by Cardinal in the for incorporating magnetic particles as taught by Bose because chitosan is a polysaccharide which is stable and thus particles entrapped within such matrix do not leak. Therefore, biomolecules attached magnetic particles on such chitosan matrix, can be stably anchored for further processing such detection without being loss in testing medium.

Conclusion

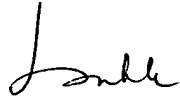
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pensee T. Do whose telephone number is 571-272-0819. The examiner can normally be reached on Monday-Friday, 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pensee T. Do
Patent Examiner
September 28, 2005


LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

09/29/05